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**PROJECT MEMORANDUM  
CALIFORNIA VALLEY SOLAR RANCH PROJECT**

**To:** John McKenzie, San Luis Obispo County  
**From:** Vida Strong, Aspen Project Manager  
**Date:** December 13, 2011  
**Subject:** Weekly Report #13: November 27, 2011 – December 3, 2011

**SAN LUIS OBISPO COUNTY ENVIRONMENTAL MONITORS (EMs):**

- Lead EMs (LEM): Lynn Stafford, Jenny Slaughter, Stephanie Jayne
- EMs: Christina Williams, David DuBois

The LEM/EMs were on site as follows:

- November 21: David DuBois
- November 22: Christina Williams
- November 23: Christina Williams
- November 24: Christina Williams, Stephanie Jayne
- November 25: David DuBois, Stephanie Jayne
- November 26: David DuBois

The California Valley Solar Ranch (CVSR) Project, undertaken by SunPower Corporation, includes the following components:

- Construction and start-up of a 250 MW Solar Generation Facility consisting of solar array complexes;
- Construction and operation of a Generation Tie-Line from the Facility to the PG&E Caliente Switching Station;
- Construction and operation of the Caliente Switching Station and a new access road, where transfer of electricity from the Generation-Tie-Line to an existing PG&E transmission line will occur;
- Expansion and operation of the Twisselman Aggregate Mine from which aggregate material will be obtained for the CVSR.

**SOLAR GENERATION FACILITY**

Authorization to start construction for Phase 1A of the solar generation facility was granted by San Luis Obispo County on September 6, 2011, after SunPower demonstrated compliance with the pre-construction requirements of the Conditions of Approval (COAs) for this portion of the Project.

Authorization to start construction for Phase 1B of the solar generation facility was granted during Fall 2011 subject to the approval of all pre-construction requirements. The pre-construction surveys were completed on October 20, 2011. Because of unanticipated delay of construction start-up, the original pre-construction surveys became out-dated. Follow-up surveys occurred on November 28, 2011, and were subsequently approved by the County.



The following construction and compliance activities occurred during the subject time period:

### **Summary of Construction Activity during the subject week:**

#### ***Phase 1A:***

Project Entrance: The main entrance to CVSR, Phase 1A, is off of Highway 58 at Boulder Creek Road. All incoming and outgoing traffic were checked and recorded by security during the subject week. The temporary vehicle washing station was used on both incoming and outgoing vehicles. Only vehicles free of dirt and weed material were allowed onsite. Security was maintained 24 hours per day, seven days per week.

Aggregate Deliveries and On-site Road Grading: Aggregate deliveries from Navajo Mine 20 miles west of the site near Highway 58 continued during the subject week. The material was used as road base for the roads within Arrays #1 and #2.

Array #1: Arriving materials continued to be shipped-to and stored-in the Array #1 area, including large spools of electrical wiring (see Figure 1). Placement of the supporting posts for the solar panels continued during the subject week. Bundles of piles for the supporting posts remain within Array #1 although the number has diminished from previous weeks as Array #1 nears completion of the pile driving phase. Welding of mounts onto installed posts continued during the subject week. Moving components were attached to these mounts within some of Array #1 (see Figure 2). None of the Array #1 activities are within designated noise sensitive areas.

Array #2: Pile driving operations continued in Array #2 during the subject week. Pipe and other materials continued to be hauled in and stored within the Array #2 site. Aggregate installation along the access and fire roads within the Array also continued. This array location is south and east of Array #1 on the way to Array #1 from Boulder Creek Road past production well 2008-325.

Existing Water Well 2008-325: Existing production well 2008-325 was temporarily deactivated during the subject week, as drilling crews replaced the existing well pump to increase production capacity (see Figure 3).

New Water Well: Production well #2 continued producing water which was used for construction during the subject week. Additional storage tanks arrived at the second production well during subject week (see Figure 4).

New Up-gradient Monitoring Well: Drilling for an up-gradient monitoring well was completed during the subject week. The monitoring well is located adjacent-to and east-of the project entrance. None of the well drilling activities exceeded county noise restrictions.

Substation: The graded site for the Project Substation, including the stockpiled topsoil and seed bank, has been lined with erosion control materials. Grading and compaction work of the substation site was completed during the subject week (see Figure 5).

Operation & Maintenance (O&M) Structures and Staging Area: Grading operations continued during the subject week. Soil was relocated from the former gypsum mine to the Substation area to assist with compaction and grading operations there. The staging area site to the north of the future facilities site has been graded and is currently used by Papich Construction, the grading contractor, for equipment and materials storage.

Trailers have been delivered to the O&M area in preparation for set-up. The trailers will be used for offices and storage. The O&M Area pad is still under construction.

***Phase 1B:***

Phase 1B grading operations began during the subject week (see Figure 6). A vehicle wash station is in the process of being assembled at the Phase 1 B entrance. One scraper was relocated from the Phase 1A O&M area to the Phase 1B area.

**Summary of Environmental Compliance during the Subject Week:**

1. On November 22nd, grading crews initiated grading activity within a previously undisturbed area near the O&M site prior to notifying cultural, paleontological, Native American, and biological monitors. The grading activity took place before any biological sweeps could take place in this area and the work was not monitored by any resource monitors. An area measuring approximately 1¼ acre was scraped before any resource monitors were notified of this work. California Department of Fish & Game (CDF&G) was not notified within 24 hours. A Project Memorandum addressing the incident was issued by the County on November 30th. To prevent a reoccurrence of this problem, the Applicant plans to include a detailed account of daily construction activities during the morning Plan of the Day (POD) meeting outlining any new grading planned, construction items to be moved, or new areas to be accessed during that day. A white board with updated daily construction activities will be present in one of the construction trailers. Resource monitors will be able to determine where and when they need to be present. Crews will be reminded to check with on site resource monitors prior to any unplanned construction activities. **Not in compliance with, COA #45, Conditions 6.2 and 6.5 of the CDF&G Incidental Take Permit (ITP), and the United States Fish & Wildlife Service (USF&WS) Biological Opinion (BO).**
2. Staking for vehicle exclusion areas has been placed throughout the Project site in appropriate locations. However, much of this staking has fallen or flagging has ripped as result of weather and other wear. During the subject week, durable metal staking with strong ribbons continued to be used to replace existing wood-staking and ribbon around biological sensitive areas throughout site. However, even the new efforts were compromised by the unusual wind storms experienced on Wednesday and Thursday during the week. As a result of the winds, ribbon and staking came undone in many areas. Additionally, staking surrounding the Environmentally Sensitive Area (ESA) around the Ranch Complex has been damaged (see Figures 7 and 8). Personnel made a concerted effort to repair staking to these areas; however, more repairs are needed. **Additional improvements required according to COA #39 (biological) and #80 (cultural).**
3. A road sweeper continued to operate along Highway 58 next to the project main entrance on Boulder Creek Road to clear dirt and gravel, especially during aggregate truck deliveries. However, the centerline was obscured for much of the week along Highway 58 (see Figure 9). **Additional improvements required according to Construction Activities Management Plan (CAMP) and COA 34k.**
4. All on-site construction crew personnel were provided with Worker Environmental Education Program (WEEP) training before commencing onsite work. Aggregate hauling truck drivers, who only deliver materials, remain on site briefly and within designated areas, were given a handout at the entrance station explaining safety and some environmental regulations. After review by the County, additional environmental topics were added to the handout in order for it to provide adequate abbreviated WEEP training for delivery and other personnel on site for brief periods of limited activity. A complete log of individuals receiving the abbreviated WEEP training, including the aggregate haulers was not available during the subject week. Also, Fed Ex trucks make occasional deliveries on site. Although they are not given any abbreviated WEEP training, they are given a hard hat and vest, and escorted through the site by security. They are also told to drive 15 mph, to roll up

their windows, and to go through the wash on the way out. During the subject week a Fed Ex truck entered the site without any escort and drove a good portion of the site before meeting with designated escort personnel. **More complete recordkeeping of individual receiving abbreviated WEEP training, and better supervision of escorted visitors required according to COA #38.**

5. COA #129n requires that at least 75% of employees reach the Project site other than single occupancy vehicle, of which at least 50% of employees arrive by shuttle vehicle (van or bus). Summary figures for September and October 2011 have been provided by the Applicant. In September, 50% of employees arrived by carpool or shuttle vehicle. In October, that percentage had increased to 69%, of which 12% arrived by shuttle vehicle. Two vanpool vehicles were utilized to transport workers to the Project site during the subject week. One provided transport from the temporary contractor's office on Soda Lake Road (approximately eight miles) and the other came from the vicinity of Highway 101 and Highway 58 (approximately 50 miles). Of the private vehicles (non shuttle) arriving at the office from off-site, some, but not the majority, were carrying more than one person. The contractor intends to expand the shuttle vehicle system to more remote locations as soon as the worker pool stabilizes and appropriate pick-up locations can be established, such as additional urban centers along Highway 101. The current shortage of water is restricting construction activities and the resultant work force. Once the temporary contractor's office on Soda Lake Road is moved to its permanent location on the Project site (early 2012), attainment of the requirements of COA #129n is likely to occur. **Improvements have been made, and additional improvements still required according to COA # 129n.**
6. Weed washing continued to be conducted by a temporary washing unit that utilizes a cobble driveway at the Phase 1A entrance. Vehicles are now washed both entering and exiting the site. Previously vehicles were washed only exiting the site. Dirt, including weed seeds, dropped from the cleaned vehicle into the cobble bed. Only vehicles free of dirt and weed material were allowed onsite. A second vehicle wash system was installed at the Phase 1 B entrance during the subject week. The permanent washer (with a self-contained recycling system) for the Phase 1A entrance still has not arrived on site. The current washing units are fulfilling the Traffic Control Management Plan (TCMP) requirement for a shaker (rumble) plate at the project entrances. **Additional improvements (installation of permanent washing system) required according to COA #42. In compliance with COA #129 (see TCMP).**
7. Dust control continued to be an issue, primarily from delivery aggregate trucks, heavy equipment and windstorms during the subject week. The primary problem is lack of water for spraying on roads and unusually excessive winds on Wednesday and Thursday of the subject week. The contractor has restricted grading and filling activities because of the limited water supply from onsite production wells (currently operating at capacity). Also, work was suspended when the wind became too great. **Additional improvements required according to COAs #33 (CAMP) and #34 to permit full construction activity as planned while preventing fugitive dust from leaving the Project site. Applicant has begun production from the second water well and is upgrading the pump at existing water well 2008-325 to increase production. Also, the continued aggregate installation along Project roads and completion of substation grading activities will passively reduce fugitive dust production.**
8. Large quantities of bundles of pipe for the solar panels have been delivered to and stored at solar panel locations in Array # 1, and Array #2. The plan to prevent disturbance to San Joaquin kit fox or other animals, during the ongoing process of hauling in pipes and other materials, relocating them, and placing them during panel construction is as follows:
  - County-approved biological monitors sweep all sites where new materials are to be placed within two hours before placement.

- Biological monitors check pipes early in the morning and also check all stored pipe at intervals during working hours for potential sheltering wildlife.
- Crews check pipes for wildlife before moving them.
- Pipe and openings over 4 inches in diameter are capped as appropriate.

Coordination between the biological monitors present and the construction crews moving equipment improved during the subject week. Most equipment and materials were properly inspected before movement. Many stored pipes, particularly the larger diameter ones, were covered, generally with plywood. Some plywood covers were noted to not be entirely snug against the pipes. As the 2012 bird nesting season approaches, the issue of closure of openings will become crucial because of the protection requirements for most bird species during nesting by the Migratory Bird Treaty Act. Also, the potential issue of entrapment of birds and/or bats in the temporary openings of vertical support posts is being researched. **Additional improvements required according to COA # 39H, USF&WS Biological Opinion (BO, Pages 15-19, and. CDF&G Incidental Take Permit (ITP).**

9. Biological, cultural and Native American and paleontological monitors were on site and stationed where needed during construction. Because of recent inquiries by other tribes, the Project is in consultation with the Salinan and Northern Chumash Tribes regarding their involvement in construction monitoring. **In compliance with COA #45 and 85. Additional improvements required according to COA #77.**
10. Some vehicles were observed exceeding the 15 mph speed limit for traffic on site. Gravel delivery trucks were repeatedly observed exceeding the limit. Traffic will continue to be monitored and speeding reported as it occurs. The majority of onsite traffic was observed following the designated speed limit **Additional improvements required according to COA #34h.**
11. A temporary off-site field office for the primary contractor, Bechtel Inc., is located in buildings on Soda Lake Road north of the CalFire station and California Valley Community Services District office, approximately eight miles by road (Highway 58 to Soda Lake Road.) west of the Project site. The Temporary Extra Work Space (TEWS) request for the use of the temporary field office on Soda Lake Road was approved by the County LEM on September 30, 2011 for a period of 60 days beginning September 6, 2011. As of November 7<sup>th</sup>, the Applicant was granted an extension for an additional 60 days. One of the Conditions of Approval states that “Biological Monitoring of the office shall be completed on a weekly basis to determine if roosting bats are disturbed by occupation of the building and that additional general measures are being followed”. The latest report of the biological monitoring was received on December 3, 2011 during the subject week, **In compliance with TEWS approval.**
12. SLO County Environmental Monitors completed the field verification of resource and disturbance area flagging for Phase 1B during the prior week. The flagging was noted to be in place and consistent with project grading plans and preconstruction survey results. The original pre-construction biological surveys that were completed on October 20, 2011, exceeded the 30-day window for pre-construction surveys because of delay in construction start-up. In response, the Applicant conducted follow-up surveys on key species at the beginning of the subject week and reported on the new surveys. **In compliance with COA #39, BO pgs 15 &27, and ITP 7.1**
13. Because the scrapers are too heavy to use the vehicle wash station, an alternative cleaning method for cleaning scrapers prior to their relocation to the Phase 1B area was developed by the Applicant in coordination with County monitors. The method involved the removal of dirt by hand on most of the vehicles. Water spray was minimal and used only on those surfaces which face the wheels and on the wheels themselves. Special care was made to avoid washing any areas where grease or lubricant oils could be flushed onto the ground. During the subject week, this method of manual dirt removal and

minimal washing was utilized on one scraper before it was relocated to the Phase 1B area. Monitors were able to observe the soil post cleaning and no oil or chemical residues were observed. **In compliance with COA #42e**

14. The above-mentioned scraper was relocated from the main project site to the Phase 1 B area. This relocation involved the scraper driving along Highway 58. For this portion of travel, the scraper was escorted by two security vehicles to provide traffic safety and monitor for any debris that may have fallen from the vehicle. The relocation was executed successfully without incident. **In compliance with COA #129**
15. On Thursday, December 1, extreme wind conditions led project managers to halt all activity. Issues caused by the wind included increased fire danger, substantial fugitive dust, and damage to site facilities, including resource and Project limits staking, portable toilets, trash cans and an office trailer (see Figures 10, 11 and 12 ). On the following Friday and Saturday, work was conducted to repair and secure staking, trash, and toilets. On Saturday, an overturned trailer was recovered with the use of a crane. **In compliance with COA #34, COA #105 (Fire safety), BO pg. 15 (dust suppression).**
16. Gravel trucks continued with deliveries of aggregate from the Navajo Mine, 20 miles west of the Project site, via Highway 58. All aggregate trucks were observed meeting the California Vehicle Code (CVC) (Sec. 23114) requirement for uncovered aggregate (at least six inches of freeboard), and that the material is fully wetted at the source (Navajo Mine) (agreed upon COA modification). County Monitors observed no dust leaving the vehicles cargo in transit during the subject week. In addition, material that was checked upon arrival at the Project site was damp to the touch. **In compliance with the modified measure.**
17. Traffic signs have been placed at several locations along Highway 58, both west and east of the Project site, warning motorists of slow trucks. In addition, Highway 58, east of the Project in the winding section of the highway through the Temblor Range, has been set up in accordance with CalTrans standards to provide one-way convoy truck routes at specified times of the day. Extra California Highway Patrol presence during work hours has been provided. The County and Applicant have posted to their websites Daily Traffic Updates (<http://www.carrizosolartraffic.com/>) Also the toll-free telephone number 888-786-9013 may be called. The project web site has been updated to recognize the current source at the Navajo Quarry 20 miles west of the site. The signage on Highway 58 west of the Project site has been updated to recognize the current source at the Navajo Mine 20 miles west of the site. **In compliance with COA #129.**
18. Adequate numbers and locations of trash cans and specific labeled recycling and trash bins have been provided on site. However, the windstorm during the subject week blew over many trash cans and scattered debris. Project personnel combed large swaths of the project site locating and removing microtrash and debris. Trash receptacles were returned to needed locations and provided with improved anchoring in anticipation of future wind events. **In compliance with COA #39f (biological), COA #56(microtrash) and COA #100 (Hazardous Waste Removal #6.1).**
19. Trapping efforts for relocation of giant kangaroo rats (GKR) from areas to be developed to appropriate conservation easements within the Project's boundaries, continued in the Phase 1B and O&M areas during the subject week. One animal was trapped in the O&M area and released in Conservation Area 1. A second animal was captured during burrow excavation in the Phase 1B area and released in Conservation Area 4. The latest weekly GKR Relocation Report was received during the subject week on December 2, 2011. As of December 1, 2011, 15 GKR have been trapped and relocated to artificial precincts within onsite, Phase 1 conservation lands. No complications during the relocation process were encountered. **In compliance with COA #59.**

20. Spill kits, fuel containment boxes, and drip pans were observed in appropriate locations. Spills and leaks are rare and most are very minor. When they do occur, leaks are swiftly cleaned by appropriate personnel. **In compliance with COA #100.**
21. Adequate fire safety measures were in place. The security building at the Project entrance has been equipped with fire extinguishers. Vehicles were used and parked only in areas cleared of vegetation. All vehicles observed were equipped with fire extinguishers. All workers have been informed of fire safety measures. Workers welding mounts to Array #1 posts had proper fire safety equipment and measures in place. In addition the process was continuously monitored by fire safety personnel. **In compliance with COA #104.**
22. Erosion control materials have been brought on site in preparation for rain events. The graded site for the project Substation, including the stockpiled topsoil, has been lined with erosion control materials, including silt fencing and straw wattles. Portions of Boulder Creek Road subject to water erosion are lined with wattles. Graded areas that sloped inward to contain run-off water from a rain event, such as the facilities and staging area sites, did not need to be supplied with erosion control materials. **In compliance with COA 91 which references the SWPPP.**
23. Hauling of aggregate material from Navajo Mine, 20 miles west of the Project site off of Highway 58, continued during the subject week. The Applicant has contacted Carissa Elementary School to confirm that trucking operations are not interfering with student drop off or pick up. Public Works, Caltrans, CHP and APCD will be provided with the revised TCMP when completed. The Agent and Applicant for Twisselman Mine continued to work towards meeting CUP conditions to become operational, so that they can begin providing aggregate for the Project. The Applicant is continuing to explore Vulcan Mine (Kern County) as a backup source of material. The signage along Highway 58 has been adjusted to reflect the Navajo Mine location.
24. There was concern that pooling water could be drawing wildlife to the project site. Tracks and scat of kit fox and birds were been observed around areas of standing water suggesting these areas were attracting more wildlife to the site. In response to these concerns, trenches containing pooling water were backfilled during the subject week (see Figure 13). Additionally fencing was installed around fuel trucks to discourage wildlife from accessing any water that gets trapped in the secondary containment system beneath it (see Figure 14).
25. There is concern regarding a kit fox that was spotted entering a den near the project boundary. A kit fox establishing a natal den within close proximity to the site could conflict with project efforts. HT Harvey is developing a list of options and communicating with the appropriate agencies to resolve any potential conflicts before they occur. Motion capture camera equipment was installed during the subject week near a possible natal den to gage the level of kit fox activity there.

#### **AUTHORIZATIONS TO START CONSTRUCTION:**

Authorization to start construction for Phase 1A of the project was granted by San Luis Obispo County on September 6, 2011, after the Applicant demonstrated compliance with the pre-construction requirements of the COAs for this portion of the Project. Phase 1A includes Arrays 1 and 2, Operation and Maintenance area, Worker Housing area, well location, and improvement of a portion of Boulder Creek Road.

Authorization to start construction for Phase 1B was granted pending the completion of additional biological pre-construction surveys to augment the earlier surveying that was completed outside the COA specified time windows. These surveys were conducted by the Applicant and field validated by the County monitors during the subject week.

**TEMPORARY EXTRA WORK SPACE (TEWS):**

A TEWS for the temporary field office on Soda Lake Road was approved on September 30, 2011. As of November 7<sup>th</sup>, the Applicant was granted an extension of the TEWS area for an additional 60 days.

**MINOR PROJECT REVISIONS:**

No requests for Minor Project Revisions have been submitted to date.

**ENVIRONMENTAL COMPLIANCE:**

A Project Memorandum was issued by the County on November 30 addressing the initiation of grading activity in a previously undisturbed area prior to notifying cultural, paleontological, Native American, and biological monitors. To prevent a reoccurrence of this problem, the Applicant plans to include a detailed account of daily construction activities during the morning Plan of the Day (POD) meeting outlining any new grading planned, construction items to be moved, or new areas to be accessed during that day. A white board with updated daily construction activities will be present in one of the construction trailers. Resource monitors will be able to determine where and when they need to be present. Crews will be reminded to check with on site resource monitors prior to any unplanned construction activities.

No Non-Compliance Reports (NCR) has been issued by the County for the Project to date.

**EXPECTED ACTIVITIES DURING UPCOMING WEEKS:**

- Installation of the vertical posts for the solar panels in Array #1 will continue and installation of mounts for the panels will continue. Installation of panels will follow.
- Installation of vertical posts for the solar panels in Array #2 will continue.
- Grading and graveling of project roads, as well as gravel deliveries, will continue as water sources permit.
- Preparation of the Staging Area and O&M sites will continue as water sources permit.
- Retrofitting of the existing water well 2008-325 to increase capacity will continue.
- Grading work will continue in Phase 1B in the coming week.
- Permanent vehicle wash station for the Phase 1A entrance to be delivered in the coming weeks.
- Dredging for a mitigation toad pond will begin soon at a site south of the O&M area. The permit has been issued by the County. The purpose is to mitigate for the removal of an existing pond that is located at the north-east corner of the O&M area.
- A 12 foot strip of paving along the convoy marshalling yard (east of the site in Kern County) on Highway 58 will occur in the coming weeks to help accommodate increased traffic of project vehicle convoys (see Figure 15).



## PROJECT PHOTOGRAPHS



**Figure 1:** Spools of electrical cables and other equipment continue to be stored in the Array #1 area. Photograph facing southward.



**Figure 2:** Moveable components have been installed on some of the Array #1 posts. Photograph facing south-eastward.



**Figure 3:** The original water well is receiving some upgrades to increase water production. Photograph facing westward



**Figure 4:** The second production well received some additional water storage tanks to help increase the available water supply. Photograph facing southward.



**Figure 5:** Compaction work at the Substation is essentially complete. Photograph facing southward.





**Figure 6:** Grading work started in the Phase 1B area. Photograph facing northward.



**Figure 7:** Extreme winds left the staking around the ESA Ranch Complex significantly damaged. Photograph facing north-eastward.



**Figures 8:** The new staking installed by the biological monitors is much more durable than previous staking measures. Photograph facing southward.



**Figure 9:** The centerline at the project entrance (Hwy 58) remains obscured by dirt. Photograph facing westward.





**Figure 10:** Thursday's windstorms severely exacerbated dust control issues. Photograph facing southward.



**Figure 11:** Wind overturned trashcans and portable toilets. Photograph facing westward.



**Figure 12:** Strong winds overturned an office trailer. The trailer was vacant at the time. Photograph at the O&M yard facing westward.



**Figure 13:** Trench and brine pond at second water well were filled in. No standing water remained. Photograph facing north-eastward.





**Figure 14:** Fencing was installed around the fuel tank at the Papich staging area. Photograph facing southward.



**Figure 15:** The convoy staging area east of the project, along Highway 58, will receive an additional 12' of shoulder. Photograph facing westward.